1

Searcher: Jeanne Horrigan

October 2, 2002

(Item 4 from file: 350) 9/26,TI/4

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

014164615

WPI Acc No: 2001-648843/200174

Device for placing conduit in fluid communication with target vessel to communicate target vessel with source of blood, especially for re-vascularizing heart

9/26,TI/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

013760233

WPI Acc No: 2001-244445/200125

Blood delivery method involves delivering blood from heart chamber into conduit during one phase of heart cycle after securing conduit to target vessel by capturing target vessel wall between components

(Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

\*\*Image available\*\* 014421126

WPI Acc No: 2002-241829/200229

Magnetic anastomotic component production for implantation in patient's body, involves forming anastomotic component from material that produces magnetic field and treating exterior surface with biocompatible material Patent Assignee: VENTRICA INC (VENT-N); CARSON D F (CARS-I); COLE D H

(COLE-I); GITTINGS D C (GITT-I); REO M L (REOM-I); SHARKAWY A A (SHAR-I) Inventor: CARSON D F; COLE D H; GITTINGS D C; REO M L; SHARKAWY A A ; CARSON D ; COLE D ; REO M

Number of Countries: 096 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200213698 A1 20020221 WO 2001US25116 A 20010810 200229 B US 20020072758 A1 20020613 US 2000255635 20001213 200243 P

US 2001851400 20010507 Α

AU 200183279 A 20020225 AU 200183279 Α 20010810 200245 Priority Applications (No Type Date): US 2001915226 A 20010723; US 2000638805 A 20000812; US 2000255635 P 20001213; US 2001851400 A 20010507

Patent Details:

Patent No Kind Lan Pq Main IPC Filing Notes WO 200213698 A1 E 34 A61B-017/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR.BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN

IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR

IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

US 20020072758 A1 A61B-017/08 Provisional application US 2000255635

AU 200183279 A A61B-017/00 Based on patent WO 200213698

Abstract (Basic): WO 200213698 Al

NOVELTY - A magnetic anastomotic component (82) for implantation in patient's body is produced from a material capable of producing a magnetic field. The anastomotic component has an exterior surface which is processed to receive a layer of biocompatible material (92).

USE - For use in making connections between various anatomical

Serial 09/851400

Searcher: Jeanne Horrigan

October 2, 2002

structures in human body.

ADVANTAGE - The method produces anastomotical components with magnetic properties that are used to couple hollow bodies quickly and securely to obtain reliable, fluid-tight connections. The anastomotic component allows a practitioner to form an elegant and clinically effective anastomosis with the flexibility to accommodate a wide range of vessel sizes and tissue types.

DESCRIPTION OF DRAWING(S) - The figure shows elevated views of a portion of processed material having magnetic properties.

Component (82)

Biocompatible layer (92)

pp; 34 DwgNo 5C/16

Derwent Class: D22; M14; P31

International Patent Class (Main): A61B-017/00; A61B-017/08

(Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

014406513 \*\*Image available\*\*

WPI Acc No: 2002-227216/200228

Method for securing magnetic anastomotic component to hollow body especially blood vessel using anastomotic component capable of producing or being attracted by magnetic field

Patent Assignee: CARSON D (CARS-I); COLE D (COLE-I); REO M (REOM-I); VENTRICA INC (VENT-N)

Inventor: CARSON D ; COLE D ; GITTINGS D ; KESSLER A; LEPULU K; REO M ; SHARKAWY A A

Number of Countries: 096 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date WO 200213704 A1 20020221 WO 2001US25132 A 20010810 200228 B AU 200183289 A 20020225 AU 200183289 Α 20010810 200245 Priority Applications (No Type Date): US 2001915226 A 20010723; US 2000638805 A 20000812; US 2000255635 P 20001213; US 2001851400 A 20010507 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200213704 A1 E 129 A61B-017/11

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200183289 A A61B-017/11 Based on patent WO 200213704

Abstract (Basic): WO 200213704 Al

NOVELTY - The method comprises providing an anastomotic component capable of producing or being attracted by a magnetic field, the component having an opening adapted to be placed in communication with a lumen of a hollow body; positioning a placement member in an inflated expanded configuration within a lumen of a hollow body at a selected location, the placement member being inflated with magnetic fluid and being capable of producing or being attracted by a magnetic field.

DETAILED DESCRIPTION - The method further comprises using magnetic attraction between the anastomotic component and the placement member to position the component at a selected location; securing the anastomotic component to the hollow body by adhesive; and changing the

October 2, 2002

placement member from the inflated configuration to a collapsed configuration; and removing the placement member from the lumen of the hollow body.

USE - In cardiology and cardiovascular surgery.

ADVANTAGE - Provides method for forming reliable anastomosis between hollow bodies in a relatively quick, easy and repeatable manner.

DESCRIPTION OF DRAWING(S) - The drawing shows sectional views showing an anastomotic component secured to the vessel.

pp; 129 DwgNo 60B/86

Derwent Class: P31

International Patent Class (Main): A61B-017/11

9/7/3 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

014406510 \*\*Image available\*\*

WPI Acc No: 2002-227213/200228

Anastomosis device has a magnetic producing component configured to secure a vessel

Patent Assignee: VENTRICA INC (VENT-N)

Inventor: CARSON D; COLE D; FOLEY M; GITTINGS D; REO M; SHARKAWY A A

Number of Countries: 096 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
WO 200213699 A1 20020221 WO 2001US25197 A 20010810 200228 B
AU 200181244 A 20020225 AU 200181244 A 20010810 200245
Priority Applications (No Type Date): US 2001915226 A 20010723; US

2000638805 A 20000812; US 2000255635 P 20001213; US 2001851400 A 20010507 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200213699 A1 E 27 A61B-017/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200181244 A A61B-017/00 Based on patent WO 200213699

Abstract (Basic): WO 200213699 A1

NOVELTY - The anastomosis device comprises a magnetic producing component (16) configured to secure a vessel without any fixation structure having a opening adapted to be placed in fluid communication with the lumen of the vessel. Part of the component is secured to the vessel by adhesive and by a non adhesive-based attachment mechanism.

 ${\tt DETAILED}$  <code>DESCRIPTION</code> - <code>An INDEPENDENT CLAIM</code> is also included for a method of forming an anastomosis.

USE - For forming anastomoses between two hollow bodies.

ADVANTAGE - Secures an anastomotic component without overly traumatizing the tissue without placing too much foreign material in the vessel lumen.

DESCRIPTION OF DRAWING(S) - The drawing shows the perspective views showing an anastomotic component being secured to a vessel.

Component. (16)

pp; 27 DwgNo 5A/54

Derwent Class: P31

October 2, 2002

International Patent Class (Main): A61B-017/00

12/7/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

014406512 \*\*Image available\*\*

WPI Acc No: 2002-227215/200228

Anastomosis forming device has comprises a magnetic field generating component, and a hermetically-sealed housing

Patent Assignee: VENTRICA INC (VENT-N)

Inventor: CARSON D; COLE D; CREWS S; GITTINGS D; LEPULU K; REO M

Number of Countries: 096 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200213703 Al 20020221 WO 2001US25113 A 20010810 200228 B AU 200183276 A 20020225 AU 200183276 A 20010810 200245 Priority Applications (No Type Date): US 2001915226 A 20010723; US

2000638805 A 20000812; US 2000255635 P 20001213; US 2001851400 A 20010507 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200213703 A1 E 77 A61B-017/11

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200183276 A A61B-017/11 Based on patent WO 200213703 Abstract (Basic): WO 200213703 A1

NOVELTY - The anastomosis forming device comprises a magnetic field generating component (360,362) having opening in communication with the lumen of a hollow body, and a biocompatible hermetically-sealed housing disposed on an exterior of the component providing a sealed enclosure. The magnetic components include a mechanism that concentrates the magnetic flux between the respective components to increase the attraction force and enhance the security of the anastomosis.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of forming a magnetic port in a hollow body located within a patient.

USE - For forming anastomoses between two hollow bodies, creating magnetic ports in vessels, and closing openings in tissue, e.g. atrial or ventricular septal defects

DESCRIPTION OF DRAWING(S) - The drawing shows the partial sectional view of showing the anastomotic component.

Magnetic generating component. (360,362)

pp; 77 DwgNo 43B/98

Derwent Class: P31

International Patent Class (Main): A61B-017/11

12/7/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

014179100 \*\*Image available\*\*

WPI Acc No: 2001-663328/200176

Magnetic force is used to form an anastomosis between hollow bodies

5

October 2, 2002

without suturing

Searcher: Jeanne Horrigan

Patent Assignee: VENTRICA INC (VENT-N); COLE D H (COLE-I)

Inventor: COLE D H

Number of Countries: 094 Number of Patents: 004

Patent Family:

Patent No Kind Date Applicat No Kind Date WO 200182803 A1 20011108 WO 2001US13803 A 20010427 200176 B AU 200157409 Α 20011112 AU 200157409 Α 20010427 200222 US 6352543 B1 20020305 US 2000562599 A 20000429 200224 US 20020103495 A1 20020801 US 2000562599 Α 20000429 200253 US 200290199 Α 20020304

Priority Applications (No Type Date): US 2000562599 A 20000429; US 200290199 A 20020304

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200182803 A1 E 50 A61B-017/08

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR

IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200157409 A A61B-017/08 Based on patent WO 200182803

US 6352543 B1 A61B-017/11

US 20020103495 A1 A61B-017/08 Cont of application US 2000562599 Cont of patent US 6352543

Abstract (Basic): WO 200182803 A1

NOVELTY - A first component (222) is secured to one hollow body such as a blood vessel (V) with a stenosis (S). A second component (224) is secured in the graft vessel (G). Magnetic force is used to form an anastomosis between the bodies. The components may be provided with roughened surfaces or mechanical projections. End-to-side, side-to-side and end-to-end anastomoses can be created.

USE - For forming an anastomosis in the treatment of cardiovascular disease, peripheral vascular disease, forming AV shunts for dialysis patients, etc.

ADVANTAGE - Quick, easy and repeatable compared to hand sewn anastomoses or those formed by existing suture-free devices.

DESCRIPTION OF DRAWING(S) - The diagram shows a sectional view of anastomotic securing components forming an end-to-side anastomosis.

pp; 50 DwgNo 22F/25

Derwent Class: P31

International Patent Class (Main): A61B-017/08; A61B-017/11

```
File 350:Derwent WPIX 1963-2002/UD,UM &UP=200263
```

File 344: Chinese Patents Abs Aug 1985-2002/Sep

File 347: JAPIO Oct 1976-2002/May(Updated 020903)

File 371: French Patents 1961-2002/BOPI 200209

```
Set Items Description
S1 17 AU='REO M':AU='REO M L'
S2 19 AU='CARSON D F'
```

S3 16 AU='CARSON D'

S4 8 AU='COLE D H' S5 31 AU='COLE D'

S6 17 AU='SHARKAWY A':AU='SHARKAWYA A A'

S7 8 AU='GITTINGS D'

```
October 2, 2002
```

```
S8
           19
                AU='GITTINGS D C'
S9
           5
                S1 AND S2:S3 AND S4:S5 AND S6 AND S7:S8
S10
           94
                S1:S8 NOT S9
S11
       838907
                MAGNET?
S12
            2
                S10 AND S11
12/3, AB/1
              (Item 1 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2002 European Patent Office. All rts. reserv.
01369112
METHODS AND DEVICES FOR PLACING A CONDUIT IN FLUID COMMUNICATION WITH A
    TARGET VESSEL AND A SOURCE OF BLOOD
PROCEDES ET DISPOSITIFS PERMETTANT DE PLACER UN CONDUIT EN COMMUNICATION
    FLUIDIOUE AVEC UN VAISSEAU CIBLE ET UNE SOURCE SANGUINE
PATENT ASSIGNEE:
  Ventrica, Inc., (2825812), 5055 Brandin Court, Fremont, CA 94538, (US),
    (Applicant designated States: all)
INVENTOR:
  CARSON, Dean, F., 1652 Yale Drive, Mountain View, CA 94040, (US)
  REO, Michael, L., 701 Baltic Circle, Unit 731, Redwood City, CA 94065, (US)
  OLSON, Stephen, L, 1229 W. Knickerboker Drive, Sunnyvale, CA 94087, (US)
  LEPULU, Keke, 117 Vera Avenue, Apt. 7, Redwood City, CA 94063, (US)
  CREWS, Sam, T., 330 Nimitz Avenue, Redwood City, CA 94061, (US)
  COLE, David, H., 10728 Maxine Avenue, Cupertino, CA 95014, (US)
  SHARKAWY, A., Adam, 731 Canyon Road, Redwood City, CA 94062, (US)
  GITTINGS, Darin, C., 520 South Bayview Avenue, Sunnyvale, CA 94086, (US)
  FOLEY, Mark, J., 1151 Hobart Street, Menlo Park, CA 94304, (US
PATENT (CC, No, Kind, Date):
                               WO 200178801 011025
APPLICATION (CC, No, Date):
                               EP 2001926980 010412; WO 2001US12158 010412
PRIORITY (CC, No, Date): US 547532 000412
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: A61M-001/00
LANGUAGE (Publication, Procedural, Application): English; English; English
 12/3, AB/2
               (Item 2 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2002 European Patent Office. All rts. reserv.
01277495
ANASTOMOTIC DEVICE AND METHODS FOR PLACEMENT
GERAT ZUR ANASTOMOSE UND VERFAHREN ZUR ANBRINGUNG
DISPOSITIF D'ANASTOMOSE ET PROCEDES DE MISE EN PLACE
PATENT ASSIGNEE:
  Ventrica, Inc., (2825812), 5055 Brandin Court, Fremont, CA 94538, (US),
    (Applicant designated States: all)
INVENTOR:
  LEPULU, Keke, 117 Vera Avenue, 7, Redwood City, CA 94063, (US) CARSON, Dean, 1652 Yale Drive, Mountain View, CA 94040, (US)
  COLE, David , 1550 Lago Street, San Mateo, CA 94403, (US)
  SHARKAWY, A., Adam, 5705 Del Monte Court, Union City, CA 94587, (US)
  OLSON, Steve, 1229 W. Knickerbocker Drive, Sunnyvale, CA 94087, (US)
  CREWS, Samuel, 330 Nimitz Avenue, Redwood City, CA 94061, (US)
```

REO, Michael , 701 Baltic Circle, Unit 731, Redwood Shores, CA 94065, (US)

Serial 09/851400 Searcher: Jeanne Horrigan October 2, 2002 GITTINGS, Darin , 520 South Bayview Avenue, Sunnyvale, CA 94086, (US) FOLEY, Mark, 1151 Hobart Street, Menlo Park, CA 94304, (US LEGAL REPRESENTATIVE: Kazi, Ilya et al (86111), Mathys & Squire, 100 Gray's Inn Road, London WC1X 8AL, (GB) PATENT (CC, No, Kind, Date): EP 1217951 A1 020703 (Basic) WO 200117440 010315 APPLICATION (CC, No, Date): EP 2000961795 000911; WO 2000US24906 000911 PRIORITY (CC, No, Date): US 393130 990910 DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI INTERNATIONAL PATENT CLASS: A61B-017/04 NOTE: No A-document published by EPO LANGUAGE (Publication, Procedural, Application): English; English; English 12/3, AB/3 (Item 1 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2002 WIPO/Univentio. All rts. reserv. 00845520 METHOD AND APPARATUS FOR PLACING A CONDUIT PROCEDES ET DISPOSITIFS PERMETTANT DE PLACER UN CONDUIT EN COMMUNICATION FLUIDIQUE AVEC UN VAISSEAU CIBLE ET UNE SOURCE SANGUINE Patent Applicant/Assignee: VENTRICA INC, 5055 Brandin Court, Fremont, CA 94538, US, US (Residence), US (Nationality), (For all designated states except: US) Patent Applicant/Inventor: CARSON Dean F , 1652 Yale Drive, Mountain View, CA 94040, US, US (Residence), US (Nationality), (Designated only for: US) REO Michael L , 701 Baltic Circle, Unit #731, Redwood City, CA 94065, US , US (Residence), US (Nationality), (Designated only for: US) OLSON Stephen L, 1229 W. Knickerboker Drive, Sunnyvale, CA 94087, US, US (Residence), US (Nationality), (Designated only for: US) LEPULU Keke, 117 Vera Avenue, Apt. 7, Redwood City, CA 94063, US, US (Residence), US (Nationality), (Designated only for: US) CREWS Sam T, 330 Nimitz Avenue, Redwood City, CA 94061, US, US (Residence), US (Nationality), (Designated only for: US) COLE David H , 10728 Maxine Avenue, Cupertino, CA 95014, US, US (Residence), US (Nationality), (Designated only for: US) SHARKAWY A Adam, 731 Canyon Road, Redwood City, CA 94062, US, US (Residence), US (Nationality), (Designated only for: US) GITTINGS Darin C , 520 South Bayview Avenue, Sunnyvale, CA 94086, US, US (Residence), US (Nationality), (Designated only for: US) FOLEY Mark J, 1151 Hobart Street, Menlo Park, CA 94304, US, US (Residence), US (Nationality), (Designated only for: US Legal Representative: LYNCH Michael J (agent), Hoekendijk & Lynch LLP, P.O. Box 4787,

Patent and Priority Information (Country, Number, Date): WO 200178801 A2-A3 20011025 (WO 0178801) Patent: Application: WO 2001US12158 20010412 (PCT/WO US0112158) Priority Application: US 2000547532 20000412 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

Burlingame, CA 94011-4787, US,

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

8 Serial 09/851400

October 2, 2002

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 15079

English Abstract

Devices and methods for placing a conduit (10) in fluid communication with a target vessel (TV) to communicate the target vessel (TV) with a source of blood. A conduit (10) is coupled to the target vessel (TV) by first (14) and second (16) securing components that compress or sandwich the vessel wall. The conduit (10) can be preshaped to assume a desired orientation when in an unbiased state, for example, to allow the conduit (10) to be deformed during delivery and then regain its desired orientation once deployed. The first (14) and second (16) securing components may be any shape but are preferably elongated in the direction of the vessel axis, e.g., elliptical or rectangular, such that a minimum amount of material is present at the outlet to closely approximate the cross-sectional area of the native target vessel. The securing components (14, 16) do not significantly occlude the target vessel lumen, may be secured to the vessel wall in non-penetrating fashion, and provides a fluid-tight seal around the attachment site. The conduit (10) may comprise tissue, synthetic material, etc., and one or both securing components may be constructed or provided with means for attaching an outologous vessel.

```
12/3,AB/4
              (Item 2 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.
00784281
ANASTOMOTIC DEVICE AND METHODS FOR PLACEMENT
DISPOSITIF D'ANASTOMOSE ET PROCEDES DE MISE EN PLACE
Patent Applicant/Assignee:
 VENTRICA INC, 5055 Brandin Court, Fremont, CA 94538, US, US (Residence).
   US (Nationality)
Inventor(s):
  LEPULU Keke, 117 Vera Avenue, #7, Redwood City, CA 94063, US,
  CARSON Dean , 1652 Yale Drive, Mountain View, CA 94040, US,
  COLE David , 1550 Lago Street, San Mateo, CA 94403, US,
  SHARKAWY A Adam, 5705 Del Monte Court, Union City, CA 94587, US,
  OLSON Steve, 1229 W. Knickerbocker Drive, Sunnyvale, CA 94087, US,
 CREWS Samuel, 330 Nimitz Avenue, Redwood City, CA 94061, US,
  REO Michael , 701 Baltic Circle, Unit 731, Redwood Shores, CA 94065, US,
  GITTINGS Darin , 520 South Bayview Avenue, Sunnyvale, CA 94086, US,
  FOLEY Mark, 1151 Hobart Street, Menlo Park, CA 94304, US
Legal Representative:
 HESLIN James M (et al) (agent), Townsend and Townsend and Crew LLP, 8th
    Floor, Two Embarcadero Center, San Francisco, CA 94111, US,
Patent and Priority Information (Country, Number, Date):
                        WO 200117440 A1 20010315 (WO 0117440)
  Patent:
 Application:
                        WO 2000US24906 20000911 (PCT/WO US0024906)
```

Priority Application: US 99393130 19990910 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

October 2, 2002

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 3803

English Abstract

Anastomotic methods and devices for placing a target vessel in fluid communication with a target vessel. A conduit (10) includes an attachment portion (12) adapted to be secured to a target vessel in fluid communication with the lumen of the vessel. The target vessel wall is sandwiched between first and second components (14, 16) of the attachment portion (12) to provide both a secure and sealed connection. One component (14) is placed in the vessel lumen against the interior surface of the wall and has an outlet that directs blood into the target vessel. This component (14) is elongated, e.g., elliptical or rectangular, such that a minimum amount of material is present at the outlet. This results in the outlet having a diameter that substantially maintains much of the cross-sectional area of the native target vessel. The attachment portion does not significantly occlude the target vessel lumen, is secured to the vessel wall in non-penetrating fashion.

16/3,AB/1 (Item 1 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2002 WIPO/Univentio. All rts. reserv.

00892566

CONDUITS FOR USE IN PLACING A TARGET VESSEL IN FLUID COMMUNICATION WITH A SOURCE OF BLOOD

CONDUITS UTILES POUR PLACER UN VAISSEAU CIBLE EN COMMUNICATION FLUIDIQUE AVEC UNE SOURCE DE SANG

Patent Applicant/Assignee:

VENTRICA INC, 5055 Brandin Court, Fremont, CA 94538, US, US (Residence), US (Nationality)

Inventor(s):

SHARKAWYA A Adam, 5705 Del Monte Court, Union City, CA 94587, US, CARSON Dean F, 1652 Yale Drive, Mountain View, CA 94040, US, GITTINGS Darin C, 520 S. Bayview Avenue, Sunnyvale, CA 94086, US, LEPULU Keke J, 117 Vera Avenue, #7, Redwood City, CA 94063, US, FOLEY Mark J, 1151 Hobart St., Menlo Park, CA 94304, US, BUCH Wally S, 178 Glenwood Avenue, Atherton, CA 94027, US, RAPACKI Alan R, 2725 Hastings Avenue, Redwood City, CA 94061, US Legal Representative:

HYNDS Joseph A (et al) (agent), Rothwell, Figg, Ernst & Manbeck, Columbia Square, Suite 701 East, 555 13th Street N.W., Washington, DC 20004, US, Patent and Priority Information (Country, Number, Date):

Patent:

WO 200226310 A1 20020404 (WO 0226310)

Application:

WO 2000US26560 20000928 (PCT/WO US0026560)

Priority Application: WO 2000US26560 20000928

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

October 2, 2002

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 18400

English Abstract

Methods and devices for placing a target vessel in fluid communication with a source of blood and a target vessel. A conduit includes first portion (12) adapted to be placed in fluid communication with a source of blood, such as a heart chamber, and a second portion (14) adapted to be placed in fluid communication with a target vessel having a lumen, such as coronary artery. The first and second conduit portions are transverse to each other such that the conduit is generally T-shaped (10). The conduit lies on an exterior of the heart between the blood source and the target vessel and is configured to deliver blood in multiple directions into the lumen of the target vessel.

```
File 348: EUROPEAN PATENTS 1978-2002/Sep W03
File 349:PCT FULLTEXT 1983-2002/UB=20020926,UT=20020919
Set
       Items Description
S1
          26
               AU='REO MICHAEL':AU='REO MICHAEL L'
              AU='CARSON DEAN': AU='CARSON DEAN F'
S2
          18
s3
          6 AU='COLE DAVID H'
S4
          17 AU='COLE DAVID'
S5
          25 AU='SHARKAWY':AU='SHARKAWY ADAM'
S6
         33 AU='GITTINGS DARIN':AU='GITTINGS DARIN C'
s7
          8 S1 AND S2 AND S3:S4 AND S5 AND S6
          2
             PN='WO 200213698'
S8
S9
          2
             PN='WO 200213699'
S10
          4 PN='WO 200213703':PN='WO 200213704'
          2 PN='WO 200182803'
S11
          4 S7 NOT S8:S11
S12
S13
          54 S1:S6 NOT S7:S12
      114250 MAGNET?
S14
      21520 MAGNETO?
S15
           2 S13 AND S14:S15
S16
         (Item 1 from file: 5)
15/6/1
13590039 BIOSIS NO.: 200200218860
Methods for forming anastomoses using magnetic force.
2002
File 155:MEDLINE(R) 1966-2002/Sep W5
File 5:Biosis Previews(R) 1969-2002/Sep W4
File 73:EMBASE 1974-2002/Sep W4
File 34:SciSearch(R) Cited Ref Sci 1990-2002/Sep W5
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
               Description
Set
       Items
               AU='REO M L':AU='REO MICHAEL L'
S1
           4
S2
           9
               AU='CARSON D F'
S3
          10 AU='CARSON DG'
S4
          3 AU='CARSON DEAN F'
S5
          3 AU='CARSON D.F.'
S6
          1 AU='COLE D H'
s7
          3 AU='COLE DH'
```

October 2, 2002

```
S8
                AU='COLE DAVID H'
S 9
           23
                AU= 'SHARKAWY A': AU= 'SHARKAWY AA'
S10
                AU='GITTINGS D':AU='GITTINGS DARIN C'
S11
            0
                S1 AND S2:S5 AND S6:S8 AND S9 AND S10
S12
           62
                S1:S10
S13
      1131083
               MAGNETI? OR MAGNETO?
S14
           3
               S12 AND S13
S15
            3
               RD (unique items)
```

```
File 348: EUROPEAN PATENTS 1978-2002/Sep W03
File 349:PCT FULLTEXT 1983-2002/UB=20020926,UT=20020919
       Items
               Description
               AU='REO MICHAEL': AU='REO MICHAEL L'
S1
          26
          18 AU='CARSON DEAN':AU='CARSON DEAN F'
S2
          17
               AU='COLE DAVID'
S3
           6 AU='COLE DAVID H'
             AU='SHARKAWY A ADAM':AU='SHARKAWY ADAM'
S5
          22
               AU='GITTINGS DARIN': AU='GITTINGS DARIN C'
S6
          33
s7
               S1 AND S2 AND S3:S4 AND S5 AND S6
          8
S8
          57
               $1:$6 NOT $7
       18475
S 9
               MAGNETS
S10
               S8 AND S9 [duplicates]
          3
```

```
16/7/3 (Item 3 from file: 155)
```

DIALOG(R) File 155:MEDLINE(R)

10522528 20049350 PMID: 10584655

Stent placement of gastroenteric anastomoses formed by magnetic compression.

Cope C; Clark T W; Ginsberg G; Habecker P

Department of Radiology, Hospital of the University of Pennsylvania, Philadelphia 19104, USA. cope@oasis.rad.upenn.edu

Journal of vascular and interventional radiology: JVIR (UNITED STATES)
Nov-Dec 1999, 10 (10) p1379-86, ISSN 1051-0443 Journal Code: 9203369

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM Record type: Completed

PURPOSE: To evaluate the use of stents for prolonging the patency of gastroenteric anastomoses (GEA) induced by magnet compression. MATERIALS AND METHODS: Rare earth magnets were inserted perorally and serially in 15 dogs so as to mate across the gastric and jejunal walls. After magnet excretion, the resulting GEA was identified endoscopically, dilated (n = 1), and stented with bare (n = 2) or partially covered (n = 6) flared 10-mm or 12-mm Z stents. The GEA was followed at 2--4--week intervals patency; malfunctioning shunts were irrigated, or dilated with angioplasty balloons. Gross and histologic examination of the anastomotic tissues was performed in 14 animals. RESULTS: Magnet pairs were excreted in 5-7 days. Of the 19 magnet placements in 15 animals, stent placement was not possible because of early GEA closure (n = 6), failure to locate (n = 2), pancreatic abscess (n = 1), and **magnet** perforation with peritonitis (n = 1). Estimated duration of GEA patency was 19 days after balloon dilation, 40-64 days with bare Z stents, and 58-147 days (mean, 90 days) with partially covered Z stents. Shunt function was commonly hindered by bezoars. Stent narrowing or occlusion was caused by tissue overgrowth through bare stents (n = 2), between covered stent struts and through

Serial 09/851400 Searcher: Jeanne Horrigan

October 2, 2002

partially detached membrane (n = 2). Serious morbidity (n = 2) was due to malpositioned magnets across the pancreas in one animal and gastric perforation in the other. One dog was euthanized because of unsuspected kidney infection. CONCLUSION: Partially covered stents significantly extend the anatomic patency rate of magnetic GEA to 7 weeks or more. Functional patency is frequently impaired by bezoars. Ongoing improvements in covered stent design should provide longer-term GEA patency.

Record Date Created: 20000120

(Item 5 from file: 155) DIALOG(R) File 155: MEDLINÉ(R) 08669760 96015290 PMID: 7579862

Evaluation of compression cholecystogastric and cholecystojejunal anastomoses in swine after peroral and surgical introduction of magnets. Cope C

Department of Radiology, University of Pennsylvania Medical Center, Philadelphia 19104, USA.

Journal of vascular and interventional radiology : JVIR (UNITED STATES) Jul-Aug 1995, 6 (4) p546-52, ISSN 1051-0443 Journal Code: 9203369 Document type: Journal Article

Languages: ENGLISH Main Citation Owner: NLM Record type: Completed

PURPOSE: To assess the efficacy of rare-earth magnets for creating a cholecystogastrostomy (CG) or cholecystojejunostomy (CJ) in nine swine. MATERIALS AND METHODS: Neodymium-iron-boron magnets or rare-earth cobalt magnets of various configuration and strength were coupled in pairs to form four CGs and five CJs. Magnets were implanted surgically in the gallbladder and jejunum, and perorally in the stomach. Gross and histologic examinations of anastomoses were performed 8-16 days later. RESULTS: All anastomoses showed good adhesion with no leakage and minimal inflammation. Anastomoses were fully patent in four CJs and one CG (mean, 12 days), partially patent in one CJ and one CG (mean, 15 days), and not patent in two CGs. Best results were noted with jacketed disc magnets with cutting rims and a 400-600-g pull. The rare-earth magnets were significantly weakened by gas sterilization in the first four CG experiments. Two of four magnets used in CJ were retained despite a fully anastomosis . CONCLUSION: Leak-free patent or partially patent cholecystenteric anastomoses were created by magnet compression in 9-16 days. This technique may have clinical interventional applications.

Record Date Created: 19951128

22/6,K/4 (Item 4 from file: 155) DIALOG(R) File 155: 07736614 93263550 PMID: 8494300

Color flow ultrasound for delineating microsurgical vessels: a clinical and experimental study.

Mar 1993

- ... experimental system in the Yucatan miniature swine model. A circulatory circuit in line with a magnetic flow probe is created. Measurements are made on the isolated hind limb of the animal...
- Anastomosis , Surgical; Arteries--ultrasonography--US; Blood Flow Velocity--physiology--PH; Graft Survival--physiology--PH; supply--BS; --ultrasonography--US; Muscles--blood Postoperative Complications -- ultrasonography -- US; Swine ...

Serial 09/851400

Searcher: Jeanne Horrigan

October 2, 2002

22/6,K/5 (Item 5 from file: 155)

DIALOG(R) File 155:

07574478 93100606 PMID: 1281501

contralateral external carotid-middle cerebral artery bypass operation -- a new procedure of vascular reconstruction in the treatment of head and neck carcinoma requiring carotid resection] Nov 1992

 $\dots$  involving the carotid artery, resection of the carotid artery and direct reconstruction using a vein graft has commonly been employed to reduce the incidence of cerebral ischemic complications. But the procedure of carotid grafting itself carries the risk of preventing complete tumor clearance. And contamination due to salivary fistula, particularly in cases of meso or hypopharyngeal carcinoma, may result in graft rupture or thrombosis. To overcome these difficulties, the authors have developed a new surgical procedure...

... designed at directly supplying the cerebral hemisphere on the carotid ligation side through a vein graft running entirely outside the cervical operative field. The vein graft is anastomosed end-to side to the external carotid artery of the opposite side. Then it is placed subcutaneously in front of the auricle, above the zygomatic arch, frontal subgaleal space and anastomosed end-to-side to the recipient artery, the ascending branch of the middle cerebral artery...

...or external shunt. The common carotid artery can be ligated safely after confirming good post- anastomotic bypass flow using an electro- magnetic blood flow meter. (ABSTRACT TRUNCATED AT 250 WORDS)

(Item 6 from file: 155) 22/6,K/6 DIALOG(R) File 155:

06924215 91237222 PMID: 2033333

[Orthotopic heart transplantation with sinus venosus incision of right atrium in dogs--preservation of sinus node and original right atrium]

... Electrocardiogram, arterial pressure and central venous pressure of the recipient were monitored, and an electro- magnetic flow meter was employed for measuring the blood flow of direct cross circulation. The

... atrium and atrial septum were sutured continuously. Sinus venosus incision of the donor heart was anastomosed to the recipient's right atrium. Ascending aorta and pulmonary trunk were reconstructed in the...

; Coronary Circulation; Dogs; Graft Rejection; Heart Atrium; Heart Conduction System--physiology--PH; Heart Transplantation--mortality--MO; Sinoatrial Node; Survival...

22/6,K/7 (Item 7 from file: 155)

DIALOG(R) File 155:

06758878 91069695

3758878 91069695 PMID: 2252702 A muscle powered cardiac assist device for right ventricular support: total assist or partial assist? Jul-Sep 1990

... the optimal bypass method for right ventricular support, and predicts the future design for an implantable MCAD. Latissimus dorsi muscle (LDM) of 11 dogs were conditioned electrically for a one year...

...and transformed into fatigue-resistant muscles (Type I fibers). Superior and inferior vena cavae were anastomosed using one arm of a Y-shaped graft , as an inflow conduit, and the outflow conduit was placed on the main pulmonary artery...

October 2, 2002

... conclusion, specific requirements for a future MCAD include a subsystem assembly such as a spring, **magnet**, or alternative auxiliary muscle pump assembly for MCAD filling, and total bypass with optimized fluid...

22/6, K/8 (Item 8 from file: 155)

DIALOG(R) File 155:

06278954 89363063 PMID: 2770066

 $[{\tt Pulmonary} \ \ {\tt valve} \ \ {\tt replacement} \ \ {\tt using} \ \ {\tt the} \ \ {\tt right} \ \ {\tt ventricle-pulmonary} \ \ {\tt artery} \ \ {\tt bypass} \ \ {\tt without} \ \ {\tt cardiopulmonary} \ \ {\tt bypass}]$ 

... pulmonary artery bypass without cardiopulmonary bypass. This right heart bypass was consisted of the vascular graft and the polystyrene tube. The vascular graft was anastomosed to the main pulmonary artery and the polystyrene tube was inserted into the free wall of the right ventricle. These were connected with a cannulating **magnet**ic flow probe. After the bypass was established, the pulmonary artery was clamped and divided. The...

... postoperative course was uneventful. One month later, the cardiac catheterization and cineangiography showed that the implanted homograft was effective sufficiently. We concluded that this right heart bypass was useful for the...

; Anastomosis , Surgical; Blood Vessel Prosthesis; Dogs; Evaluation Studies

22/6,K/9 (Item 9 from file: 155)

DIALOG(R) File 155:

06036977 89121336 PMID: 3065125

[Budd-Chiari syndrome with thrombosis of the inferior vena cava. Treatment by mesenterico-innominate shunt]
Oct 1988

... surgery. A reinforced polytetrafluoroethylene prosthesis (Gore-Tex) was used, associated with an interposition jugular vein graft in the 12-year old child, alone in the other case. The left innominate vein... symptoms, 8 and 4 months after surgery respectively. Shunt patency was documented by angiography and magnetic nuclear resonance.

; Adult; Anastomosis , Surgical; Child; Hepatic Vein Thrombosis --complications--CO; Thrombosis--surgery--SU

22/6, K/10 (Item 10 from file: 155)

DIALOG(R) File 155:

05702547 88127716 PMID: 2448900

Advances in vascular endoscopy.

Dec 1987

... in use to check-up and secure full blood flow restoration (angiography, ultra-sound, electro- magnetic flowmeter etc.). In the last years endoscopical lumen control, introduced 1969 in clinical praxis, could... semi-closed thromboendarterectomy (aorto-iliac or femoropopliteal), b) arterial embolectomy, c) lumen control of inserted grafts including the anastomosis and the distal run-off vessels, d) venous thrombectomy. The availability of small-calibre endoscopes...

22/6, K/12 (Item 1 from file: 144)

DIALOG(R) File 144: (c) 2002 INIST/CNRS. All rts. reserv.

14062950 PASCAL No.: 99-0254424

(Preservation of the left side of the pancreas after pancreatic neck disruption by blunt abdominal trauma. A report of three cases)

October 2, 2002

1999

Copyright (c) 1999 INIST-CNRS. All rights reserved.

... du pancreas et souligner l'interet de la conservation du pancreas gauche grace a une anastomose pancreatodigestive. Patients et resultats: Dans les deux premieres observations, un hemoperitoine dans l'une et...

... rupture isthmique du pancreas qui a ete traitee par suture du cote cephalique et par anastomose entre le pancreas corporeocaudal et une anse jejunale en Y. Les malades allaient bien avec...

... L'isthme du pancreas a ete reseque, le segment cephalique suture et le segment caudal implante dans l'estomac. Le malade allait bien huit mois plus tard. Sa glycemie etait normale...

... est souhaitable si les circonstances le permettent, mais le meilleur examen est actuellement la resonance **magnet**ique nucleaire. En l'absence de rupture canalaire, le simple drainage peritoneal suffit. S'il existe... ... guerison. En cas de rupture complete, la suture du pancreas du cote cephalique et l'anastomose du pancreas gauche avec une anse jejunale en Y ou mieux avec l'estomac semble...

English Descriptors: Tissue rupture; Pancreas; Surgical anastomosis; Pancreaticojejunal; Treatment; Conservative surgery; Left; Case study; Human

22/6,K/14 (Item 1 from file: 8)
DIALOG(R)File 8:(c) 2002 Engineering Info. Inc. All rts. reserv.
01764390

Title: NON-INVASIVE MEASUREMENT OF BLOOD FLOW-RATE IN EXPANDED POLYTETRAFLUOROETHYLENE GRAFTS.

Publication Year: 1985

Abstract: Four 6 mm e-PTFE grafts were placed subcutaneously into four dogs between the carotid artery and jugular vein to model shunt flow through an access graft . Flow-rates were varied from 120 to 2000 ml/min (N = 42) by use of a cardiac stimulant (Aramine) and external constrictor. Measures of graft flow were made simultaneously by electromagnetic flowmeter (EMF) and Doppler ultrasound based on a known graft diameter, use of a flat-head probe providing a fixed beam-to-vessel angle and... ...were 0. 54, 0. 96 and 0. 92 at measurement sites just beyond the arterial/ graft anastomosis , at the graft loop and just proximal to the graft /venous anastomosis , respectively. 24 refs.

...Descriptors: Magnetic ; VELOCIMETERS

Identifiers: EXPANDED POLYTETRAFLUOROETHYLENE; NONINVASIVE MEASUREMENTS; VASCULAR GRAFTS; BLOOD FLOW RATE; ACCESS GRAFTS

22/6,K/16 (Item 2 from file: 73)
DIALOG(R)File 73:(c) 2002 Elsevier Science B.V. All rts. reserv.
02256777 EMBASE No: 1982049938

Diagnosis of the functioning of an interposed part of the colon substituting part of the oesophagus after oesophageal resection. 1981

...by part of the colon. The functioning of this interposed part was examined by both magnetic tape recording and conventional fluoroscopy. The following findings and special aspects were noted: 1. Formation of a 'pocket' in the area of the upper anastomosis . 2. 'Watering-can' phenomenon in case of great length of the interposed part. 3. Pronounced... ... and retrosternal pain. Comparison of findings via roentgenography and via fluoroscopy with those determined via magnetic tape recording showed the advantages of the magnetic tape recording in checking on the function of the restored oesophageal tract.

MEDICAL TERMS (UNCONTROLLED): colon graft; graft function

October 2, 2002

22/6,K/17 (Item 1 from file: 34) DIALOG(R) File 34:(c) 2002 Inst for Sci Info. All rts. reserv. Genuine Article#: YR936 Number of References: 21 Title: Significance of arterial defects on completion arteriograms following infrainguinal bypasses (ABSTRACT AVAILABLE) Publication date: 19980100 ... Abstract: examined by measuring the internal diameter on completion arteriograms and its relationship to the distal anastomotic site, underlying disease, and time the artery was ischemic, and the results of intraoperative magnetic flowmetry were analyzed. These changes were compared with those revealed by subsequent postoperative arteriography. The... ... fates of these changes could not be predicted by use of completion arteriography or intraoperative magnetic flowmetry. ...Identifiers--ANGIOGRAPHY; ANGIOSCOPY; GRAFTS; RECONSTRUCTIONS; ROUTINE; PATENCY 22/6,K/18 (Item 2 from file: 34) DIALOG(R) File 34:(c) 2002 Inst for Sci Info. All rts. reserv. 05050102 Genuine Article#: TL997 Number of References: 48 Title: TRANSMURAL CHANNELS CAN PROTECT ISCHEMIC TISSUE - ASSESSMENT OF LONG-TERM MYOCARDIAL RESPONSE TO LASER-MADE AND NEEDLE-MADE CHANNELS ... Abstract: to treat patients with coronary artery disease who are unable to undergo angioplasty or bypass graft surgery and in cases in which previous surgery has failed. To reconcile the lack of... ...Identifiers--POLARIZED-LIGHT MICROSCOPY; CORONARY-ARTERY; NORMAL GROWTH; INFARCT SIZE; RABBIT HEART; BLOOD-FLOW; REVASCULARIZATION; HYPERTROPHY; ANASTOMOSES; CO2-LASER Research Fronts: 94-0178 001 (ION PARAMETRIC RESONANCE MODEL FOR MAGNETIC -FIELD INTERACTIONS; THERMAL HYSTERESIS PROTEINS; CRYOPRESERVATION OF EMBRYOS; ICE GROWTH; IN-VIVO SURVIVAL) (Item 1 from file: 94) DIALOG(R) File 94: (c) 2002 Japan Science and Tech Corp(JST). All rts.reserv. 04253320 JICST ACCESSION NUMBER: 99A0705339 FILE SEGMENT: JICST-E Effect of alternating magnetic fields on skin blood flow., 1998
ABSTRACT: Effect of alternating magnetic fields on skin blood flow were investigated by two kinds of experimental studies. One was exposure of a rabbit ear to the alternating magnetic field(50Hz,700G) and measurements were made by laser doppler flow meter. Skin blood flow... ... is exposure of an island flap on the back of a rat to the alternating magnetic fields (50Hz, 800G). Survival length of the flap increased 22% on the average. Microangiogram of the flap demonstrated that venous anastomosis in the flap developed better than arterial anastomosis . Increase of the survival length was considered to be chiefly caused by improvement of venous... ...DESCRIPTORS: magnetic field ... BROADER DESCRIPTORS: graft 22/6,K/21 (Item 2 from file: 94) DIALOG(R) File 94: (c) 2002 Japan Science and Tech Corp(JST). All rts.reserv. 00603829 JICST ACCESSION NUMBER: 88A0320217 FILE SEGMENT: JICST-E Coronary arterial diseases. An outline of equipments and apparatus for diagnosis and treatment., 1987 ...DESCRIPTORS: magnetocardiogram ; ... anastomosis ;

Serial 09/851400 Searcher: Jeanne Horrigan October 2, 2002

... BROADER DESCRIPTORS: artificial implant;

22/7/1 (Item 1 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

08669759 96015289 PMID: 7579861

Creation of compression gastroenterostomy by means of the oral, percutaneous, or surgical introduction of **magnets**: feasibility study in swine.

Cope C

Department of Radiology, University of Pennsylvania Medical Center, Philadelphia 19104, USA.

Journal of vascular and interventional radiology: JVIR (UNITED STATES)
Jul-Aug 1995, 6 (4) p539-45, ISSN 1051-0443 Journal Code: 9203369

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM Record type: Completed

PURPOSE: The use of magnets placed surgically, percutaneously, and orally to create compression gastroenteric anastomoses was evaluated in 11 swine. MATERIALS AND METHODS: Disc-shaped, jacketed rare-earth magnets with cutting edges varying in diameter from 0.250 inch (6.4 mm) to 0.500 inch (12.7 mm) were used in seven swine, and rectangular types were used in three swine. Magnets were implanted surgically in five and introduced by means of standard interventional techniques through a gastrostomy in two and perorally in four animals. Anastomoses (n = 8) were studied grossly and histologically for acute changes at 5-13 days and for 30-day patency in one. RESULTS: Of the nine surviving pigs, there were seven completely patent anastomoses and one partially patent anastomosis at 7-13 days. At 5 days the anastomosis was not patent in the remaining animal. One anastomosis became occluded at 30 days. There was no anastomotic leakage, infection, or bleeding. CONCLUSIONS: Leak-free gastrojejunostomies can be created by inserting magnets perorally, percutaneously, or surgically.

Record Date Created: 19951128-

22/7/2 (Item 2 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

08011123 94146359 PMID: 8312560

The inflammatory-reparative processes in the implantation of the ureter into the bladder by using the mechanical forces of permanent **magnets**]

Vospalitel'no-reparativnye protsessy pri implantatsii mochetochnika v mochevoi puzyr' s pomoshch'iu mekhanicheskikh sil postoiannykh magnitov.

Lubashevskii V T; Shabanov A M; Vasil'ev G S

Biulleten' eksperimental'noi biologii i meditsiny (RUSSIA) Nov 1993, 116 (11) p550-2, ISSN 0365-9615 Journal Code: 0370627

(11) p330 2, 1331 3303 3013 3011 13000. 0370

Document type: Journal Article ; English Abstract

Languages: RUSSIAN

Main Citation Owner: NLM Record type: Completed

An anastomosis between the ureter and the bladder using ring magnets was first made in our and foreign countries, Magnetic -compressive systems, based on alloy of samarium and cobalt (CS-37), were developed, taking into account their practical use in pediatric surgery. Morphological studies showed that the magnetic compressive procedure for connecting the ureter with the bladder has some advantages.

Record Date Created: 19940324

October 2, 2002

22/7/3 (Item 3 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

07774706 93299035 PMID: 7686058

Endoscopic **magnet**ic cholecystodigestive anastomoses : personal technique for palliative treatment of distal bile duct obstruction.

Saveliev V S; Avaliani M V; Bashirov A D

Dept. of Faculty Surgery, Russian State Medical University, Moscow.

Journal of laparoendoscopic surgery (UNITED STATES) Apr 1993, 3 (2)

p99-112, ISSN 1052-3901 Journal Code: 9109598

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM Record type: Completed

A new type of endoscopic surgery (magnetic cholecystodigestive anastomoses) is presented as an alternative to conventional palliative treatment of mechanical obstruction with icterus located below the bile duct inlet. By means of endoscopic technique, two clinically usable methods of creating delayed magnetic cholecystogastric anastomoses and one modality of implanting cholecystoenteric and entercenteric anastomosis have been worked out in the experiment conducted on 50 mongrels with mechanical icterus. Ring-shaped or rectangular magnets were implanted in the gallbladder through laparoscopic cholecystostomy. Implantation into the stomach was accompanied by simultaneous gastroscopy. In clinical conditions, four endoscopic cholecystogastric anastomoses and one cholecystoduodenal anastomosis have been performed on patients suffering from malignant obstruction of distal bile duct due to cancer of the head of the pancreas, making any radical surgery pointless. The preliminary results indicate that endoscopic magnetic cholecystodigestive anastomoses can serve as a form of palliative treatment of distal bile duct malignant obstructions.

Record Date Created: 19930723

22/7/11 (Item 11 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

01372122 72118983 PMID: 5161061

Regulation of a portacaval anastomosis with an implanted valve animated by a **magnet**ic source]

Regulation d'une anastomose porto-cave par une vanne implantable animee par une source  ${\bf magnet}$ ique .

Marion P; Lapeyre D; de Bennetot M; Cottin M; Estanove S; George M; Rubet A; Pinet F

Lyon chirurgical (FRANCE) Sep-Oct 1971, 67 (5) p383-5, ISSN 0024-7782 Journal Code: 0376627

Document type: Journal Article

Languages: FRENCH

Main Citation Owner: NLM Record type: Completed

Record Date Created: 19720503

File 155:MEDLINE(R) 1966-2002/Sep W5

File 144: Pascal 1973-2002/Sep W5

File 5:Biosis Previews(R) 1969-2002/Sep W4

File 6:NTIS 1964-2002/Sep W5

File 2:INSPEC 1969-2002/Sep W5

File 8:Ei Compendex(R) 1970-2002/Sep W4

File 99: Wilson Appl. Sci & Tech Abs 1983-2002/Aug

File 65:Inside Conferences 1993-2002/Sep W5

Serial 09/851400

Searcher: Jeanne Horrigan

October 2, 2002

```
File 73: EMBASE 1974-2002/Sep W4
File 34:SciSearch(R) Cited Ref Sci 1990-2002/Sep W5
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 94:JICST-EPlus 1985-2002/Jul W4
File 35:Dissertation Abs Online 1861-2002/Sep
Set
      Items
              Description
S1
      175662
              ANASTOMO?
S2
     2860889 MAGNET? ? OR MAGNETI? OR MAGNETO?
S3 1424475 IMPLANT? OR GRAFT?
S4
      61802 BIOCOMPATIB?
      237986 STERIL?
S5
       7796 ACID()ETCH?
S6
s7
              S1 AND S2 AND S3
         464
S8
          13
              S4 AND S7
S 9
          5
              S5 AND S7
             S6 AND S7
          0
S10
          0 S8 AND S9
S11
S12
         18 S8:S9
S13
         10 RD (unique items)
          2 S13/2002 OR S13/2001
S14
          8 S13 NOT S14
S15
      8 Sort S15/ALL/PY,D
S16
S17
      925448 MAGNETIC() RESONANCE
S18
      44 S7 NOT S17
S19
          32 S18 NOT S12
S20
          23 RD (unique items)
S21
          2
              S20/2002 OR S20/2001
S22
          21
              S20 NOT S21
```

```
(Item 6 from file: 442)
12/3, AB, K/7
DIALOG(R) File 442: AMA Journals
(c)2002 Amer Med Assn -FARS/DARS apply. All rts. reserv.
```

Copyright (C) 1989 American Medical Association

Microvenous Grafts to Arterial Defects; The Use of Mechanical or Suture Anastomoses (ORIGINAL ARTICLES)

GILBERT, RALPH W.; RAGNARSSON, RAFN; BERGGREN, ANDERS; OSTRUP, LEIF

Archives of Otolaryngology

August, 1989; 115: 970-9761989;

LINE COUNT: 00236 WORD COUNT: 03262

ABSTRACT: A mechanical microvascular anastomotic device, the Unilink system, was compared with sutures in terms of patency, anastomotic time, and histologic changes when a microvenous graft is placed in an arterial defect. Twenty rabbits underwent grafting of a 1.0-cm defect in both carotid arteries with a 1.5-cm reversed femoral vein graft. Anastomoses were performed with the Unilink system on one side and sutures on the other. Animals were killed at 2 weeks (10 animals) and 16 weeks (10 animals) with the vein grafts being assessed with clinical patency tests and then fixated for histologic evaluation. All 20 grafts (100%) interposed with the Unilink system were fully patent while 17 (85%) of the 20 grafts interposed with sutures were fully patent. The grafting procedure with the Unilink anastomoses averaged 12.5 minutes while the sutured anastomoses averaged 41.9 minutes. No differences in the histologic appearance of the vein grafts were noted between the two types of anastomoses. All grafts showed endothelialization at 2 weeks with intimal hyperplasia or

October 2, 2002

"arterialization" being a constant finding.

- CITED REFERENCES:
  - 1. Mitz V, Staub S, Morel-Fatio D. Advantages of interpositional long venous grafts in microvascular surgery. Ann Plast Surg. 1979;2:16-23.
  - 2. Salibian A, Valentino RT, Wood DL. Staged transfer of a free microvascular latissimus dorsi myocutaneous flap using saphenous vein grafts . Plast Reconstr Surg. 1983;71:543-547.

    3. Biemer E. Vein grafts in microvascular surgery. Br J Plast Surg.
  - 1977;30:197-198.
  - 4. Urbaniak JR, Evans...
  - 5. Ostrup LT, Berggren A. The UNILINK instrument system for fast and safe microvascular anastomosis . Ann Plast Surg. 1986;17:521-525.
  - 6. Berggren A, Ostrup LT, Lidman D. Mechanical anastomosis of small arteries and veins with the UNILINK apparatus: a histological and scanning electron microscopic...
- ...Surg. 1987;80:274-283.
  - 7. Ragnarsson R, Berggren A, Ostrup LT, Franzen L. Microvascular anastomosis of interpositional vein grafts with the UNILINK system: a comparative experimental study. Scand J Plast Reconstr Surg. In press.
  - 8. Ragnarsson R, Berggren A, Ostrup L, Gilbert RW. Arterial end-to-side anastomosis with the Unilink system. Ann Plast Surg. In press.
  - 9. Nylander G, Ragnarsson R, Berggren A, Ostrup LT. The UNILINK system for mechanical microvascular anastomosis in hand surgery. J Hand Surg Am. 1989;14:44-48.
  - 10. Androsov PI. New...
- ...12. Goetz RH, Rohman M, Haller J, Dee R, Rosenak SS. Internal mammary coronary artery anastomosis : a nonsuture method employing tantalum rings. J Thorac Cardiovasc Surg. 1961; 41:378-386.
  - 13. Gottlob R, Blumel G. Anastomosis of small arteries and veins by means of bushings and adhesive. J Cardiovasc Surg (Torino...
- ...9:337-341.
  - 14. Daniel RK, Lidman D, Olding M, Williams J, Matlaga BF. An anastomotic device for microvascular surgery: evolution. Ann Plast Surg. 1984;13:402-411.
  - 15. Gentili F, Lougheed WM, Yoshijima S, Hondo H, MacKay B. A technique for rapid nonsuture vascular anastomosis . Can J Neurol Sci. 1987; 14:92-95.
  - 16. Obora Y, Tamaki N, Matsumoto S. Nonsuture microvascular anastomosis using magnet rings: preliminary report. Surg Neurol. 1978; 9:117-120.
  - 17. Holt G, Lewis FJ. A new technique for end to end anastomosis of small arteries. Surg Forum. 1960; 11:242-243.
  - 18. Nakayama K, Tamiya T, Yamamoto K, Akimoto S. A simple new apparatus for small vessel anastomosis . Surgery. 1962;52:918-931.
  - 19. Schneider PR, Pribaz J, Russel RC. Microvenous graft length determination for arterial repair. Ann Plast Surg. 1986;17:292-298.
  - 20. Fujikawa S, O'Brien BMcC. An experimental evaluation of microvenous grafts . Br J Plast Surg. 1975;28:244-246.
  - 21. O'Brien BMcC, Haw C, Kubo T, Gilbert A, Hayhurst JW. Microvenous graft of small vein defects. Br J Plast Surg. 1979;32:164-166.
  - 22. Buchler U...
- ...Co; 1979:83-89.
  - 23. Melka J, Charbonneau R, Bosse JP. Experimental evaluation of microarterial grafts in rats and rabbits: long term histologic

21 Serial 09/851400

October 2, 2002

studies. Plast Reconstr Surg. 1979;63:245-248.

- 24. Das SK, O'Brien BMcC, Browning FSC, Nicholls BWG, Nightingale G. Segmental microvenous graft to artery. Br J Plast Surg. 1980;33:365-370.
- 25. Carmignani G, Belgrano E, Puppo P, Cichero A, Sanna A. Long term results with autogenous microvascular grafts in various experimental models in rats. Microsurgery. 1981;2:189-194.
- 26. Kruavit A, Fletcher CDM, Mckee PH, Mayou B: Experimental microvascular autogenous vein grafts for arterial defects: a study of anastomotic sites. Microsurgery. 1987;8:201-207.
- 27. Ryan AD, Goldberg I, O'Brien BMcC, MacLeod AM. Anastomosis of vessels of unequal diameter using an interpositional vein graft . Plast Reconstr Surg. 1988;81:414-417.
- 28. Rao VK, Nightingale G, O'Brien BMcC. Scanning electron microscope study of microvenous grafts to artery. Plast Reconstr Surg. 1983;71:98-106.
- 29. Dilley RJ, McGeachie JK, Prendergast FJ. A morphometric study of vein graft intimal hyperplasia. Plast Reconstr Surg. 1986;77:451-454.
- 30. Fuchs JCA, Hagen PO. Long-term fate of autologous vein grafts . In: Serafin D, Buncke H, eds. Microsurgical Composite Tissue Transplantation. St Louis, Mo: CV Mosby...
- ...GJ, Wyatt AP, Rothnie NG, Taylor GW. A histological and histochemical examination of autogenous vein grafts . Br J Surg. 1967;54:147-155.
  - 32. Kern WH, Dermer GB, Lindesmith GG. The intimal proliferation in aortic-coronary saphenous vein grafts . Am Heart J. 1972;84:771-777.

(Item 8 from file: 442) 12/3, AB, K/9 DIALOG(R) File 442:AMA Journals (c)2002 Amer Med Assn -FARS/DARS apply. All rts. reserv. Copyright (C) 1983 American Medical Association

Rehabilitation of Facial Paralysis in Children (ORIGINAL ARTICLE ) KAY, PETER P.; KINNEY, SAM E.; LEVINE, HOWARD; TUCKER, HARVEY M. Archives of Otolaryngology

October, 1983; 109: 642-6471983;

LINE COUNT: 00220 WORD COUNT: 03044

ABSTRACT: We report the experience and philosophy of the Department of Otolaryngology and Communicative Disorders at the Cleveland Clinic in rehabilitation of facial paralysis in children 12 years old and younger. The causes and evaluation of facial paralysis in children and the options available for rehabilitation are considered, and the criteria, expectations, and limitations of successful rehabilitation are outlined. Depending on the limitations imposed by the clinical situation, the aims of treatment are as follows: (1) normal resting tonus, (2) symmetry at rest, symmetry in motion, (4) no synkinesis, (5) appropriate mimetic function, (6) no significant loss of adjacent function, and (7) rapid return of function. Every attempt must be made to avoid causing any significant muscular or neurologic deficit and to avoid interfering with return of function of the seventh nerve, when that possibility exists. (Arch Otolaryngol 1983;109:642-647)

CITED REFERENCES:

- ...pedicle technique. Clin Plast Surg North Am 1979;6:3.
- 16. Tucker HM: Cross face anastomosis as an adjunct to facial rehabilitation, in Graham M, House W (eds): Disorders of the Facial Nerve. New York, Raven Press, 1982.
- 17. Anderl H: Selective cross face nerve grafting in facial paralysis:

October 2, 2002

Principles and application, in Daniel RK, Terzis JK (eds): Reconstructive Microsurgery. Boston...

... Head Neck Surg 1978; 1:12-23.

- 20. Harii K: Free muscle transplantation with microneurovascular anastomosis, in Daniller, Strauch (eds): Symposium on Microsurgery. St Louis, CV Mosby Co, 1976.
  - 21. Thompson N, Gustavson EH: The use of neuromuscular free autografts with microneural anastomosis to restore elevation to the paralyzed angle of the mouth in cases of unilateral paralysis...

... Acad Ophthalmol Otol 1977;84:763-768.

- 23. Conley J, Baker DC: Hypoglossal facial nerve anastomosis for rehabilitation in facial paralysis. Plast Reconstr Surg 1979;63:63-72.
- 24. Goren SB...
- ...Muhlbauer WD, Segeth H, Veissmann A: Restoration of lid function in facial palsy with permanent magnets . Chir Plastica 1973;1:295-301.
  - 27. Blair VP: Notes on the operative correction of...

```
File 95:TEME-Technology & Management 1989-2002/Sep W5
```

- File 98:General Sci Abs/Full-Text 1984-2002/Aug
- File 9:Business & Industry(R) Jul/1994-2002/Oct 01
- File 16:Gale Group PROMT(R) 1990-2002/Oct 02
- File 160: Gale Group PROMT(R) 1972-1989
- File 148:Gale Group Trade & Industry DB 1976-2002/Oct 02
- File 635: Business Dateline(R) 1985-2002/Oct 01
- File 636: Gale Group Newsletter DB(TM) 1987-2002/Oct 02
- File 621: Gale Group New Prod. Annou. (R) 1985-2002/Oct 01
- File 441:ESPICOM Pharm&Med DEVICE NEWS 2002/Sep W5
- File 20:Dialog Global Reporter 1997-2002/Oct 02
- File 810: Business Wire 1986-1999/Feb 28
- File 813:PR Newswire 1987-1999/Apr 30
- File 610: Business Wire 1999-2002/Oct 02
- File 613:PR Newswire 1999-2002/Oct 02
- File 609: Bridge World Markets 2000-2001/Oct 01
- File 649: Gale Group Newswire ASAP (TM) 2002/Sep 27
- File 15:ABI/Inform(R) 1971-2002/Oct 01
- File 88:Gale Group Business A.R.T.S. 1976-2002/Oct 01
- File 442:AMA Journals 1982-2002/Sep B2
- File 444: New England Journal of Med. 1985-2002/Sep W5
- File 149:TGG Health&Wellness DB(SM) 1976-2002/Sep W4

Set Items Description

- S1 6669 ANASTOMO?
- 52 542592 MAGNET? ? OR MAGNETI? OR MAGNETO?
- S3 307701 IMPLANT? OR GRAFT?
- S4 17570 BIOCOMPATIB?
- S5 127397 STERIL?
- S6 1423 ACID()ETCH?
- S7 10 S1(10N)S2(10N)S3
- S8 0 S7 AND S4:S6
- s9 . 10 s7/2002 or s7/2001
- S10 . 25 S1(S)S2(S)S3
- S11 15 S10 NOT S9
- S12 12 RD (unique items)

Serial 09/851400

Searcher: Jeanne Horrigan

October 2, 2002

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

010711530 \*\*Image available\*\*

WPI Acc No: 1996-208485/199621

Miniature durable artificial heart for implanting within natural heart - uses high-energy-product permanent **magnet**s in radially stable arrangement for carrying entire radial load of high-speed pump rotor and most of axial load, and rotor is fully suspended and rotated **magnet**ically

Patent Assignee: JARVIK R (JARV-I)

Inventor: JARVIK R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 5507629 A 19960416 US 94261858 A 19940617 199621 B
Priority Applications (No Type Date): US 94261858 A 19940617

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5507629 A 7 F04B-035/04

Abstract (Basic): US 5507629 A

Highly-miniaturized rotary artificial hearts small enough to be implanted within the natural heart are provided. The entire radial load of a high-speed pump rotor and most of the axial load is carried by a radially stable arrangement of high-energy-product permanent magnets . The rotor is fully suspended and rotated magnetically , with the exception of a single thrust-bearing contact point which utilizes ultra-hard, wear-resistant material, preferentially diamond, located at the axis of rotation in a high-flow region of the pump. No sensors or electromagnets are required for the bearings. One preferred embodiment utilizes dual mirror-image axial or mixed flow impellers mounted on a single axis so as to pump from a central inflow port out both ends of the device. This achieves thrust balancing, reduces pump speed by approximately half for a given flow and pressure, and is well-accommodated anatomically with double outflow grafts , one anastomosed directly to the aorta within the heart, and the second connected via the apex to the descending thoracic aorta.

USE/ADVANTAGE - Rotary artificial hearts utilising centrifugal-flow, mixed-flow or axial-flow pumps. Requires no electrical power input, and fully suspends the radial load of a rotating object. Provides miniature and extremely durable blood pump for highly reliable long-term use in humans.

Dwg.1,2/7

Derwent Class: Q56; S05; V02; V06; X25

International Patent Class (Main): F04B-035/04

7/7/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

008935379

WPI Acc No: 1992-062648/199208

Ureterocystonestomy method - by forming side to side compression anastomosis between ureter wall and bladder submucous-mucous layer using magnets

Patent Assignee: MOSC MED PIROGOV (MOME-R)

Inventor: ISAKOV Y U F; STEPANOV E A; VASILEV G S
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week

Serial 09/851400 Searcher: Jeanne Horrigan

October 2, 2002

SU 1277452 A 19910615 199208 B Priority Applications (No Type Date): SU 3903412 A 19850328 Abstract (Basic): SU 1277452 A

Re- implantation of the distal part of the ureter in the urinary bladder is performed with tunnel anti-reflex protection. The anastomosis is formed on a catheter which is subsequently withdrawn through the cystostomy.

A side to side compression anastomosis is formed using magnets between the wall of the ureter and the submucous-mucous layer of the urinary bladder. The magnetic rings are mounted with a fastening cuff on a ureteral catheter, which is taken through the walls of the organs being joined using a needle. Magnets with a force of interaction of 4.5-7.5 G/mm2 are used at a distance of 1 mm.

USE - To form a ureterocystostomy with minimal trauma to the tissues, thus reducing post-operation complications. Bul. 22/15.6.91. Dwg.0/0

Derwent Class: P31

International Patent Class (Additional): A61B-017/00

File 350: Derwent WPIX 1963-2002/UD, UM & UP=200263 File 344: Chinese Patents Abs Aug 1985-2002/Sep File 347: JAPIO Oct 1976-2002/May(Updated 020903) File 371: French Patents 1961-2002/BOPI 200209 Set: Items Description S1 2124 ANASTOMO? S2 827064 MAGNET? ? OR MAGNETI? OR MAGNETO? S3 173463 IMPLANT? OR GRAFT? S4 6702 BIOCOMPATIB? ġ5 78275 STERIL? **S**6 1126 ACID() ETCH? S1 AND S2 AND S3

12/3,AB,K/3 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.
00462030

A MODULAR PROSTHETIC CONDUIT AND METHOD OF SURGICAL IMPLANTATION CONDUIT PROTHETIQUE MODULAIRE ET PROCEDE D'IMPLANTATION CHIRURGICALE Patent Applicant/Assignee:

GRIFFITH Donald P,

Inventor(s):

GRIFFITH Donald P.

Patent and Priority Information (Country, Number, Date):

Patent: WO 9852494 A1 19981126

Application: WO 98US10440 19980522 (PCT/WO US9810440)

Priority Application: US 97862200 19970523

Designated States: CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English Fulltext Word Count: 5557

English Abstract

The present invention is directed toward a modular prosthetic conduit implanted within a mammal, comprising a first conduit member (30) of a nonporous biocompatible alloplast having a distal end (30a), and a proximal end (30b). The invention further comprises a second conduit member (10) composed of a nonporous biocompatible alloplast having a

October 2, 2002

distal end (10b), and a proximal end (10a) with a fixation region (11) located near one or both ends. The fixation region (11) includes an expansile/contractile means or component (14) within the wall. In a preferred embodiment, the expansile/contractile means or component (14) is a temperature sensitive material wherein radial expansion and fixation occur within the range of 35 degreesCelsius to 38 degreesCelsius. Detailed Description

... 2. Description of the Prior Art

Implantable prosthetic conduits are frequently used In the field of medicine to provide pathways for transporting...

...It is known that biocompatible alloplastic devices coated with porous biocompatible tissue-bonding material, such as porous polytetrafluoroethylene (PTFE), or porous polyurethane, or porous Dacron@ or other porous biocompatible alloplasts, effectively bond with epithelial-lined muscular visceral tissues in watertight anastornotic union. Long-term durability of such anastomoses has been achieved in both humans and in animals, Extraluminal porous biocompatible tissue-bonding material, such as polytetrafluoroethylene or porous Dacron@ or porous polyurethane or other porous biocompatible alloplasts, in such unions does not usually become colonized with intraluminal bacteria, Bacterial colonization of...

...viscera@ such as the urinary collecting system, Such colonization leads to the erosion of the anastomoses and loss of any implanted conduit or related prosthetic device, Nonporous biocompatible alloplast tubes that pass through viscera, such as the epithelial-lined muscular organs, including but not limited to the ureter, bladder, and urethra, and which are anchored extraluminally by porous biocompatible tissue-bonding material, do not usually transmit intraluminal bacteria to the extraluminal porous biocompatible tissue-bonding material. Nonporous biocompatible alloplast tubes, such as silicone tubes, in chronic contact with urine are subject to coating...

...low-cost replacement of such tubes is desirable, The present invention is directed toward making implantable medical devices that make effective use of the tissue-bonding properties of porous biocompatible tissue-bonding material, such as potytetrafluoroethylene, polyurethane or polyester 2 fiber, and that also contain a renewable or replaceable nonporous biocompatible alloplast component which can be periodically replaced, A suitable polyester fiber is sold under the trademark Dacron& The present invention is directed toward a modular implantable conduit that will allow replacement of the component most likely to become problematic. This invention will decrease the time, expense, and complexity of surgery required to replace such implants, The present invention also encompasses a surgical method of implanting the conduit, The present invention envisions that the conduit may be used to transport energy (such as electrical, magnetic, or pneumatic), or fluid (such as urine, blood, glandular fluid, or spinal fluid), into or...

13/3,AB,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.
00390848
FLANGED GRAFT FOR END-TO-SIDE ANASTOMOSIS
GREFFON A COLLERETTE POUR ANASTOMOSE TERMINO-LATERALE
Patent Applicant/Assignee:
 IMPRA INC,
 SCHOLZ Hans,
 KRUGER Ulf,
 SETTMACHER Utz,
Inventor(s):

Serial 09/851400 Searcher: Jeanne Horrigan October 2, 2002 SCHOLZ Hans, KRuGER Ulf, SETTMACHER Utz, Patent and Priority Information (Country, Number, Date): Patent: WO 9731591 A1 19970904 Application: WO 96US2714 19960228 (PCT/WO US9602714) Priority Application: WO 96US2714 19960228 Designated States: AU BR CA JP MX US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE Publication Language: English Fulltext Word Count: 6819 English Abstract An expanded polytetrafluoroethylene flanged vascular graft (10) suitable for end-to-side anastomosis grafting having an integral terminal polytetrafluoroethylene flanged skirt or cuff section (12) which facilitates an end-to-side anastomosis directly between an artery and the expanded polytetrafluoroethylene flanged bypass graft (10) without need for an intervening venous collar or venous patch. Detailed Description ... an optimal hemodynamic flow pattern for an end-to-side anastomosis. Conventional end-to-side anastomoses exhibit complex hemodynan-@c flow patterns at the anastornotic junction. Zones of low flow velocity... ...velocity and vortex formation are found in virtually all types of known end-to-side anastomoses . Clearly, detailed hemodynamic measurements are difficult to obtain in Wvo. A pulsatile flow model was developed to simulate hemodynamic conditions within the distal end-to-side anastomosis of the inventive femoro-infragenicular bypass graft 10. A closed flow loop system was made by connecting two reservoirs maintained at systolic and diastolic pressure. A magnetic valve was used to generate I 0 a pulsatile flow representative of that in the... 13/3, AB, K/2 (Item 2 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2002 WIPO/Univentio. All rts. reserv. 00390847 APPARATUS AND METHOD FOR MAKING FLANGED GRAFT FOR END-TO-SIDE ANASTOMOSIS APPAREIL ET PROCEDE DE PRODUCTION D'UN GREFFON A COLLERETTE POUR ANASTOMOSE TERMINO-LATERALE Patent Applicant/Assignee: IMPRA INC, RANDALL Scott, TANG Roy H, LAMAY Albert L, Inventor(s): RANDALL Scott, TANG Roy H, LAMAY Albert L, Patent and Priority Information (Country, Number, Date):

LAMAY Albert L,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9731590 Al 19970904
Application: WO 96US2715 19960228 (PCT/WO US9602715)
Priority Application: WO 96US2715 19960228
Designated States: AU BR CA JP MX US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 10153
English Abstract

Serial 09/851400 Searcher: Jeanne Horrigan

October 2, 2002

A method (150) and apparatus (100) for forming a flanged polytetrafluoroethylene cuffed section (18, 20) from a tubular polytetrafluoroethylene graft (10). The flanged polytetrafluoroethylene graft (10) is well suited for use as a distal bypass graft, for arterio-venous grafting, or as a hemodialysis access graft. The graft (10) is characterized by an integral terminal polytetrafluoroethylene flanged skirt (56) or cuff (18, 20) section which facilitates an end-to-side anastomosis directly between an artery and the polytetrafluoroethylene flanged graft (10) without need for an intervening venous collar or venous patch.

Detailed Description

... hemodynamic flow pattern for an end-to-side anastomosis.

1 5 Conventional end-to-side anastomoses exhibit complex hemodynamic flow patterns at the anastomotic junction. Zones of low flow velocity, reversed...

...velocity and vortex formation are found in virtually all types of known end-to-side anastomoses. Clearly, detailed hemodynamic measurements are difficult to obtain in vivo. A pulsatile flow model was developed to simulate hemodynamic conditions within the distal end-to-side anastomosis of the inventive femoro-infragenicular bypass graft IO. A closed flow loop system was made by connecting two reservoirs maintained at systolic and diastolic pressure. A magnetic valve was used to generate a pulsatile flow representative of that in the femoral arteries...

13/3,AB,K/3 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.
00387154

A DEVICE, SYSTEM AND METHOD FOR INTERSTITIAL TRANSVASCULAR INTERVENTION DISPOSITIF, SYSTEME ET PROCEDE D'INTERVENTION TRANSVASCULAIRE INTERSTITIELLE Patent Applicant/Assignee:

TRANSVASCULAR INC,

MAKOWER Joshua,

Inventor(s):

MAKOWER Joshua,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9727897 A1 19970807

Application: WO 97US1459 19970131 (PCT/WO US9701459)

Priority Application: US 9610614 19960202

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 13750

English Abstract

This invention is devices, systems and methods for trans-vascular interstitial interventions, including trans-vascular, catheter based vascular bypass, transmyocardial re-vascularization, bypass grafting of blood vessels, and interstitial surgical/interventional procedures wherein a catheter is advanced trans-lumenal through the vasculature (2) to a desired location (OB) and an operative instrument (5) is passed through the wall (2) of a blood vessel (2) and to a target location (3) (e. g., another blood vessel, an organ, a tumor, another anatomical structure) such that one or more operative devices may be advanced to the

Serial 09/851400 Searcher: Jeanne Horrigan October 2, 2002

target location to perform the desired operative or interventional procedure. Detailed Description

... in accordance with a preferred embodiment of the invention, a procedure for Joining, across an anastomosis channel 3305, two vessels in a side-to-side manner for bypassing a stenosis. Graft 3300, which may be an artificial or biological segment, or a transplanted vessel from a...

...against vessel 3307 using probe 3301, and the scheme described in Figures 4 and 5. Graft 3300 may subsequently be affixed in place with an attachment means, for instance, a surgical adhesive 3309. The attachment means, for example, stay sutures, energy based welding, glues, or magnetism may be used to hold the two vessels in apposition. Since an artificial or biological... ...bypass conduit in a side-to side procedure discussed herein, one or both ends of graft 3300 may be terminated with a clip 3303 to prevent leakage of flow therefrom. over...

...wire 3306, an attachment delivery device 3302 is introduced 35 to junction 3308 between the graft 3300 and the vessel 3307 to deploy an attachment member thereat. One type of attachment member useable for this purpose is an anastomosis stent 3304 having a clover shape, a complete description of which is set forth in...

File 348: EUROPEAN PATENTS 1978-2002/Sep W03

File 349:PCT FULLTEXT 1983-2002/UB=20020926,UT=20020919

File	349: PCT FUI	TEXT 1983-2002/UB=20020926,UT=20020919
Set	Items	Description
S1	2032	ANASTOMO?
S2	199842	MAGNET? ? OR MAGNETI? OR MAGNETO?
\$3	98810	IMPLANT? OR GRAFT?
S4	16837	BIOCOMPATIB?
S5	97479	STERIL?
S6	1867	ACID()ETCH?
s7	11	S1(S)S2(S)S3
S8	. 7	S4:S6(S)S7
S9	4	PN='WO 200213698':PN='WO 200213699'
S10	4	PN='WO 200213703':PN='WO 200213704'
S11	2	PN='WO 200182803'
S12	3	S8 NOT S9:S11
S13	3	S7 NOT S8:S12